

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): Acrylic sheet for use as non-transparent sound-deadening unit in noise barriers comprising, a non-transparent sheet wherein the dimension of the sheet is 2 x 2 m or greater at a thickness of more than 8 mm, ~~preferably more than 12 mm~~, wherein the sheet contains threads, tapes, grids, or nets made from a material incompatible with the acrylic sheet that have been embedded into the acrylic sheet to bind splinters in the event of fracture of the sheet, and further comprising a filler wherein the proportion of the filler based on the total weight of the sheet reduced by the weight of the embedded threads, tapes, grids or nets, is from 40 to 80 per cent by weight.

Claim 2 (Currently Amended): Acrylic sheet according to Claim 1, wherein the thickness of the acrylic sheet is in the range from more than 8 mm to 40 mm, ~~preferably in the range from greater than 10 to 35 mm~~.

Claim 3 (Previously Presented): Acrylic sheet according to Claim 1, wherein the thickness of the acrylic sheet is in the range from 12 to 35 mm.

Claim 4 (Previously Presented): Acrylic sheet according to Claim 1, wherein the proportion of fillers, based on the total weight of the sheet, is in the range from 50 to 60 per cent by weight.

Claim 5 (Previously Presented): Acrylic sheet according to Claim 1, wherein the acrylic sheet has a substantially homogeneous distribution of the fillers in the sheet.

Claim 6 (Previously Presented): Acrylic sheet according to Claim 1, wherein the filler is selected from the group consisting of talc, dolomite, naturally occurring talc-and-dolomite intergrowths, mica, quartz, chlorite, aluminium oxide, aluminium hydroxide, clays, silicon dioxide, silicates, carbonates, phosphates, sulphates, sulphides, metal oxides, powdered glass, glass beads, ceramic, kaolin, porcelain, cristobalite, feldspar, chalk and mixtures thereof.

Claim 7 (Previously Presented): Acrylic sheet according to Claim 1, wherein the filler particles used are lamellar fillers.

Claim 8 (Currently Amended): Acrylic sheet according to Claim 1, wherein the average particle size of the filler used is in the range from 0.01 to 80 μm , ~~in particular in the range from 0.05 to 30 μm , very particularly advantageously in the range from 0.1 to 20 μm .~~

Claim 9 (Currently Amended): Acrylic sheet according to Claim 1, wherein the filler is a talc-and-dolomite intergrowth, ~~where appropriate optionally~~ in a mixture with aluminium hydroxide.

Claim 10 (Currently Amended): Acrylic sheet according to Claim 1, obtainable by polymerizing a (meth)acrylate system in a casting process, ~~preferably by the cell casting process or a modified form thereof~~, where the polymerizable system comprises:

A) a) (meth)acrylate	50	-	100	% by wt
a1) methyl (meth)acrylate	0	-	99.99	% by wt
a2) C ₂ -C ₄ (meth)acrylate	0	-	99.99	% by wt
a3) \geq C ₅ (meth)acrylate	0	-	50	% by wt

a4) polyfunctional	0.01	-	50	% by wt
(meth)acrylates				
b) comonomers	0	-	50	% by wt
b1) vinyl aromatics	0	-	50	% by wt
b2) vinyl esters	0	-	50	% by wt

where the selection of components a) and b) is such that together they give 100 per cent by weight of the polymerizable component A),

B) for each 1 part by weight of A), from 0 to 12 parts by weight of a (pre)polymer which is swellable or soluble in A),

C) initiator, its amount being sufficient to cure component A),

D) ~~where appropriate, means of~~ an optional component for adjusting the viscosity of the system,

E) optionally, conventional additives, their amount being up to 3 parts by weight for each 1 part by weight of A),

and

F) from 0.33 to 4 parts by weight of fillers for each 1 part by weight of binder (entirety of A) to E)),

and the viscosity of the (meth)acrylate system prior to the polymerization is greater than 0.1 Pa·s (greater than 100 cP).

Claim 11 (Currently Amended): Acrylic sheet according to Claim 1, wherein the acrylic sheet has steel threads which have been embedded ~~into the highly filled plastics matrix~~ therein, and which, ~~where appropriate~~ optionally, have a coating of plastic, ~~preferably of plastic composed of~~ polyamide wherein the steel threads bind splinters in the event of fracture.

Claim 12 (Previously Presented): Process for producing an acrylic sheet according to Claim 1, comprising

- a) providing a polymerizable, filled (meth)acrylate composition,
- b) pouring the composition provided into a previously prepared mould in which have been positioned the threads, tapes, grids or nets intended to be embedded,
- c) polymerizing the composition in the mould at a temperature above room temperature to give a sheet and
- d) demoulding the sheet,

wherein the viscosity of the polymerizable, highly filled (meth)acrylate composition is adjusted to a value greater than 0.1 Pa·s prior to the polymerization.

Claim 13 (Currently Amended): Process according to Claim [[13]] 12, wherein the viscosity of the composition is regulated by varying the ratio by weight of (pre)polymer to polymerizable monomers in the composition.

Claim 14 (Previously Presented): Process according to Claim 13, wherein the viscosity of the composition is regulated by varying the proportion of viscosity adjusters.

Claim 15 (Currently Amended): A non-transparent sound-deadening unit comprising noise barrier which comprises an acrylic sheet as claimed in Claim 1, ~~wherein the acrylic sheet is utilized as a noise barrier.~~

Claim 16 (New): Acrylic sheet according to Claim 1, wherein the dimension of the sheet is 2 x 2 m or greater at a thickness of more than 12 mm.

Claim 17 (New): Acrylic sheet according to Claim 2, wherein the thickness of the acrylic sheet is in the range from greater than 10 to 35 mm.

Claim 18 (New): Acrylic sheet according to Claim 8, wherein the average particle size of the filler used is in the range from 0.05 to 30 μm .

Claim 19 (New): Acrylic sheet according to Claim 8, wherein the average particle size of the filler used is in the range from 0.1 to 20 μm .

Claim 20 (New): Acrylic sheet according to Claim 10, wherein the casting process is the cell casting process or a modified form thereof.

Claim 21 (New): Acrylic sheet according to Claim 11, wherein the coating of plastic is present and comprises polyamide.